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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/642,766	08/19/2003	Chuan Weng	87334.5920	3006

30734 7590 12/05/2005

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EXAMINER
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HARDEE, JOHN R

ART UNIT	PAPER NUMBER
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1751

DATE MAILED: 12/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/642,766

Applicant(s)

WENG, CHUAN

Examiner

John R. Hardee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) 1-25 and 40 is/are pending in the application.
- 4a) Of the above claim(s) 2-10, 12, 13, 15-23 and 25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 11, 14, 24 and 40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant is reminded that a restriction requirement remains in effect. The claims were searched and examined only to the extent that they read on the elected invention, compositions consisting of exactly one A refrigerant, one B refrigerant, one D refrigerant, one E refrigerant and R740, the sole G refrigerant.
2. Claims 2-10, 12, 13, 15-23 and 25 are withdrawn from consideration by the examiner as being drawn to inventions non-elected with traverse, there being no allowable generic claim. The remaining claims were searched and examined only to the extent that they read on the elected subject matter. *No claims can pass to issue until all non-elected subject matter is deleted from the claims.*
3. As a part of the restriction requirement, it was agreed that substitution of any A refrigerant for another A refrigerant, any B refrigerant for another B refrigerant, any D refrigerant for another D refrigerant and/or any E refrigerant for another E refrigerant would be obvious. See the telephone interview of January 11, 2005.

### ***Claim Rejections - 35 USC § 103***

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
5. Claims 1, 11, 14, 24 and 40, to the extent that they read on the elected invention, are rejected under 35 U.S.C. 102(e) as being anticipated by or, in the alternative, under

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35 U.S.C. 103(a) as obvious over Podtchereniaev et al., US 6,502,410. See Figs. 7 and 8. Argon is a G refrigerant; R-14 is an E refrigerant; R-23 is a D refrigerant; R-236fa is a B refrigerant; and R-245fa is an A refrigerant. It would have been obvious at the time that the invention was made to make the elected composition, because the reference discloses that such a composition can be made using the recited constituents with no additional mandatory constituents. Where specific refrigerants are not disclosed, applicant has admitted on the record that it would be obvious to substitute any of the other refrigerants within the group disclosed by applicant. Accordingly, it would be obvious to substitute any of the other D refrigerants for the disclosed R-23, and any of the other B refrigerants for the disclosed R-236fa. Claim 40 is drawn to conventional refrigeration apparatus, and use of same would be obvious in view of the teaching of the reference that the disclosed compositions are useful in refrigeration.

6. Claims 1, 11, 14, 24 and 40, to the extent that they read on the elected invention, are rejected under 35 U.S.C. 102(e) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Flynn, US 6,560,981. See Table 1, cols. 7-8. Argon is a G refrigerant; R-14 is an E refrigerant; R-23 is a D refrigerant, as is ethane; R-236fa is a B refrigerant; and R-245fa is an A refrigerant, as are R-236ea and R-245ca. It would have been obvious at the time that the invention was made to make the elected composition, because the reference discloses that such a composition can be made using the recited constituents with no additional mandatory constituents. Where specific refrigerants are not disclosed, applicant has admitted on the record that it would be obvious to substitute any of the other refrigerants within the group disclosed by

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applicant. Accordingly, it would be obvious to substitute any of the other D refrigerants for the disclosed R-23, and any of the other B refrigerants for the disclosed R-236fa. Claim 40 is drawn to conventional refrigeration apparatus, and use of same would be obvious in view of the teaching of the reference that the disclosed compositions are useful in refrigeration.

### ***Response to Arguments***

7. Applicant's arguments filed November 17, 2005 have been fully considered but they are not persuasive. Again, applicant's attempts to recast the restriction requirement are not well taken, as they are contrary to the record established in the telephone interview of January 11, 2005. Substitution of one A refrigerant for another A refrigerant, etc. was admitted by applicants to be obvious, and applicants will continue to be held to this admission.

Regarding applicant's traversal of the rejections, applicant has argued that the cited references do not disclose a number of the recited refrigerants. For the most part, such claims are withdrawn from consideration. Where applicant has deleted one of the disclosed refrigerants from his Markush groups, it would be obvious, based on applicant's admissions, to substitute one of the other refrigerants for the deleted species, making the claims obvious.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to the examiner, Dr. John R. Hardee, whose telephone number is (571) 272-1318. The examiner can normally be reached on Monday through

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Friday from 8:00 until 4:30. In the event that the examiner is not available, his supervisor, Dr. Yogendra Gupta, may be reached at (571) 272-1316.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "J. Hardee", with a stylized, cursive script.

John R. Hardee  
Primary Examiner  
November 30, 2005